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THE VOICED SPIRANTS IN GOTHIC.

1. *b* after *r* and *l*.

THE accepted view as to the value of Gothic *b* is that it represents in the initial position and medially after consonants, *m*, *r*, and *l*, a voiced stop, medially after vowels a voiced spirant; cf. Paul, *PBB.* I. 158; Dietrich, *Üb. d. Ausspr. d. Got.*, p. 71; Braune, *Got. Gr.*⁴, § 54; Streitberg, *Got. Elementarb.*, p. 26, etc.

This interpretation of *b* is no doubt correct as regards the initial position and the medial position after *m* and after vowels, and in these points Gothic agrees essentially with Westgerm. and Scandinavian. But after *r* and *l* Pregerm. *þ* remains a spirant in the Northern and Western branches of the Germanic family (Oisl. *huerfa*, *suerfa*, *sialfr*, *halfa*; OE. *hweorfan*, *sweorfan*, *seol fa*, *healf*; OS. *hwerþan*, *swerþan*, *self*, *halþa*), and therefore in case *b* in Gothic *hairban*, *swairban*, *silba*, and *halba* is a stop, it represents a more advanced stage of development than appears in Oisl., OE., and OS. of five hundred years later.

This apparent divergence from the comparative primitiveness of the Gothic consonant system leads us to examine again the criteria for determining the value of *b* after *r* and *l*.

1. The reproduction of Gothic names in Latin. Braune, § 54, Anm. 2, following Dietrich, p. 71, cites the form *Albila*. This name, however, throws no light upon the point in question, as it is taken from the Greek historian Procopius (6th cent.) and appears in the original as 'Αλβίλας (Wrede, *Spr. d. Ostgoten*, p. 104; cf. also "Αλβην, p. 103); β, although it had at that time the value of a spirant, was also the only letter in the Greek alphabet which could possibly represent the Gothic voiced labial spirant.

So far as I know, there is but one Gothic proper name with voiced labial after *r* or *l* which has come down to us in Latin garb; viz., the late West Gothic *Silua* or *Selua*. Two different personages subscribed this name to the Acts of the Church Councils at Toledo, *Selua* Narbonensis Metropol. episc. to those of the fourth and sixth, A.D. 633 and 638, and *Selua* Egitanensis episc. to those of the eighth, A.D. 652. Concerning the form of these signatures it is to be noted that Dahn, *Könige des Germanen*, Abt. 6, from which the alphabetical list of West Gothic names in Bezzenberger, *Üb. d. A-reihe d. got. Spr.*, pp. 7-12, is taken, gives, p. 443, Anm. 8 (4th council), *Sclua*; p. 445, Anm. 1 (6th council), *Sclua* (al. *Silva*, *Selva*); and p. 461, Anm. 3 (8th council), *Sclua*. But Aguirre, *Collectio maxima conciliorum Hispaniae, ed. altera Romae*, 1753, cited by Dahn, Abt. 5, p. xiv, as source for 'Concilia,'¹ has Tom. II., p. 385 (conc. IV.), *Selva* and variant *Isclaa*; p. 413 (conc. VI.), *Silva* and variants *Salva*, *Selva*; p. 448 (conc. VIII.), *Selva*. Now as Aguirre and Mansi are the only sources cited by Dahn for the Spanish councils, and so far as I can see he did not consult the manuscripts, we are justified in accepting the readings of Aguirre as the original ones, as authoritative as they are clear and consistent. But even if Dahn's readings go back to the manuscripts or to another accurate source not mentioned, *Silva*, *Selva*, cited as variants to *Sclua* (6th council), must represent the original form of the name, from which the form with *c* (for *e*) arose through a copyist's error and perhaps also under the influence of forms like *gisclamundus*, *teudisclus*, etc.; Bezzenberger, *l.c.* The variants with *i* and *e* cannot be explained from the point of view of an original *Sclua*, which itself would be etymologically obscure. On the other hand, the identity of *Selva* with Gothic (Wulfilanic) *silba* is evi-

¹ Mansi, *Sacrorum conciliorum nova et amplissima collectio ed. nova Florentiae*, 1774, to which Dahn also refers, is based, so far as the Spanish councils are concerned, upon Aguirre (cf. Tom. II., coll. 641, 671, 1222). I have not been able to consult the first edition of Aguirre's *Col. max.*, 1693-94, but find in his *Notitia conciliorum Hispaniae*, etc., Salmanticae, 1686, p. 110, in a sketch of the council of 633 the name *Selva* Narbonensis, p. 121, in connection with the council of 638 *Silva* (alias *Selva* and *Salva*) Narbonensis.

dent ;¹ cf. the parallel Ohg. *Selbo*, Förstemann, *Ahd. Namenbuch*, I. col. 1082, and Kluge's conjecture upon the original significance of the pronoun of identity, *Etym. Wb.*⁵ s. *selb*. The constant spelling *u* in this word shows that the descendant of Pregerm. *þ* in West Gothic of the seventh century had spirantal value after *l*, that in other words the spirant maintained itself, and therefore goes very far to establish the spirantal value of West Gothic (Wulfilanic) *b* in this position in the fourth century.

2. As a further proof of the spirantal value of *b* after *l* the reproduction of Lat. *v* by *b* in *Silbanus*, II. Cor. I, 19, Cod. B, II. Thes. I, 1, Codd. A and B, might be adduced.² But although the name usually appears in the Greek manuscripts as Σιλονα-*vós*, yet in others, especially in the Codex Claromontanus (ed. Tischendorf, Lips. 1852), which according to Marold, *Germ.*, 26, 146 sq., stands nearest to the original text from which the Gothic translation of the Epistles was made, the form Σιλβανός is found ; and therefore it is most probable that the Gothic form is based upon the Greek.

3. The only argument against the spirantal value of *b* after *r* and *l*, that which has been convincing for all modern scholars, is that it does not become *f* in the final position and before *s*, as is the case with *b* after vowels, but remains, thus apparently ranging itself with *b* after *m* (*lamb, dumbs*) and *d* after all consonants (*land, waurd, gazds*, etc.), where the stop is assured. But the fact has been overlooked that, according to Uppström, there is one example of final *f* after *r* corresponding to medial *b*, viz. *þarf*, Philip. 2, 25, Cod. B. The Gabelentz-Loebe text has *þarb*, and this form appears in Leo Meyer, *Got. Spr.*, § 80, p. 78 ; but Uppström, *Codices gotici ambrosiani*, p. 76, reads *Abþan þarf munda*, and remarks

¹ *e* for Wulf. *i*, cf. Wrede, *Spr. d. Ostg.*, p. 162. For other examples of *u* in the West Gothic names = Wulf. *b* (intervoc.), cf. Bezzenger, *l.c.* It might be added that an exhaustive study of these names based upon an accurate collation of the Mss. is a desideratum.

² Paul, PBB., I, 147, cites *Silbanus* along with *Naubaimbair* of the Calendar as proving the spirantal value of *b* medial, but tacitly passed over its evidence, when drawing his conclusion as to the value of *b* after *r* and *l*. In Braune, *Gr.*, § 54, Anm. 1, *Silbanus* is inaccurately cited as an example of intervocalic *b*.

in the *Adnotationes*, p. 109: *parf*, sic Cod., non *parb*. Litterae *par* clarissimae sunt: ultima littera exesa quidem est, ut perspicui non possit: spatium vero non admittit B. That the stem of this word is **parba*- is shown by *parbans*, Luke 9, 11, and therefore if the reading *parf*, which has been adopted by the later editors Bernhardt and Heyne, is correct, it is an indisputable proof that *b* after *r* and *l* is a spirant.

There are six other examples of *rb* final and before *s* in the Gothic fragments; cf. Leo Meyer, *l.c.*: *biswarb*, Luke 7, 38. 44; John 11, 2; 12, 3; *heilahairb*, II. Cor. 4, 17, Cod. B; and *gabaurbs*, Titus 1, 8, Cod. B. It is to be noted that the four examples of *biswarb* occur in Luke and John, where postvocalic *b* and *d* occur so frequently final and before *s* (Braune, § 56, Anm. 1, § 74, Anm. 1).¹ In II. Cor. along with *heilahairb* the following forms with *d* for *þ* occur: *faheds*, 2, 3, Cod. B (*faheþs*, Cod. A); *weitwod*, 1, 25, A and B; *awiliud*, 2, 14, A, B; 4, 15, B; 8, 16, B (*awiliuþ*, A); 9, 15 B. In Titus we find beside *gabaurbs*, *gastigods*, 1, 8, B, and *ungafairinonds* (most probably scribal error for *-ods*), 1, 6 B. That is, the examples of *rb* final and before *s* are all accompanied by forms in which the labial or dental voiced spirants appear after a vowel instead of the regular voiceless spirant, and therefore the spelling *b* in the former is by no means a final proof that the sound represented is a stop; rather, in the light of the other evidence, we are forced to conclude that *b* after *r* and *l* represents a spirantal sound, that the cases of *rb* final and before *s* are parallel to those of post-vocalic *b* and *d* in the same position.²

¹ Such forms in the immediate neighborhood of *biswarb* are, in Luke: *hlaihs*, 4, 3; *hlaib*, 4, 4; 9, 3; *grob*, 6, 48; *twalib*, 6, 13; 8, 1; *gods*, 6, 35. 43; *brubfads*, 5, 34. 35; *hundafads*, 7, 6; *mitads*, 6, 38; **-ids*, 4, 15. 27; 6, 40; 7, 8; *god*, 6, 43; 9, 33; *faurbaud*, 5, 14; 8, 56; *anabaud*, 5, 14; 8, 29. 55; *stad*, 4, 17. 42; *bad*, 5, 12; 8, 31. 41; *mid*, 7, 11; *haubid*, 7, 46; *liuhad*, 8, 16; *manased*, 9, 25; *-laud*, 6, 34; 7, 14; *-id*, 4, 4. 8. 10. 17; 6, 48; 7, 27; and the verbal endings *-id*, *-aid*, etc., chaps. 4-9 ca. 50 times; in John: *þiubs*, 10, 10; 12, 6; *hlaib*, 13, 18. 30; *gods*, 10, 11; *manaseds*, 12, 19; 15, 18. 19; *faheds*, 15, 11; *gaswerads*, 13, 31; *manased*, 12, 47. 47; *anabaud*, 14, 31; *stad*, 10, 40; 14, 2. 3; *had*, 13, 36; *swalaud*, 14, 9; *liuhad*, 11, 10; 12, 46; and the verbal endings *-aid*, *-eid*, chaps. 10-14, 9 times.

² The forms *biswarb*, *heilahairb*, *gabaurbs* may be compared to such forms as *þiubs*, J. 10, 10; 12, 6; I. Thes. 5, 2. 4; *unleds*, L. 16, 20; *braid*, Mt. 7, 13;

2. *b* and *d* final and before *s* and *z* final.

Of the theories which have been proposed in explanation of *b*, *d*, and *z*, where a voiceless spirant *f*, *þ*, or *s* is to be expected, the sandhi-theory has seemed the most acceptable. Kögel suggested in the *Litbl. f. germ. u. rom. Phil.*, Jhrg. 6, col. 276, that the forms with final *d* originally occurred before words with vocalic initial, and cited *bairiþ* and *bairid* as alternate forms (Satzdoubletten). Quite recently this theory in an extended form has been advanced in Streitberg's *Gotisches Elementarbuch* (Heidelberg, 1897), § 30, where it is attributed to Sievers and formulated as follows: "Vor stimmhaftem Anlaut bleiben die stimmhaften Spiranten des Auslauts erhalten." According to Streitberg, this rule is confirmed by an overwhelming (weitaus überwiegende) majority of the cases of *d* and *b*, and the fluctuation in the Mss. between *þ* and *d*, *f* and *b* is simply due to vacillation between word-writing (Wortschrift) and sentence-writing (Satzschrift).

It is remarked at once that the Sievers-Streitberg law refers only to *b*, *d*, and *z* final, and that the cases of *b* and *d* before *s* are passed over in silence, although such forms are cited in the lists of examples. But any explanation of the former which utterly disregards the latter is, to say the least, incomplete.

Bs and *ds* occur only in nominatives of masc. *a*-stems and masc. and fem. *i*-stems, where through syncope of the stem vowel the voiced spirant comes into direct contact with the voiceless spirant *s*, which forms the ending, and would, through assimilation to this, naturally lose its voiced quality. As a matter of fact, *fs* and *þs* appear in three-fourths of all the cases, *bs* and *ds* in one-fourth.¹ Now it is quite clear that

etc. (cf. Braune, § 56, Anm. 1), in which no cases with final *f* or *þ* occur. Furthermore, it is unfortunate that the forms *heilabairb* and *gabaurbs* are preserved only in Ambros. B, for if the corresponding text in Ambros. A were preserved, we might expect *f* as in the following cases, where *b* and *d* in B correspond to *f* and *þ* in A: *hlaib*, II. Thes. 3, 8; *awiliud*, I. Cor. 15, 57; II. Cor. 2, 14; 8, 16; *faheds*, II. Cor. 2, 3; Gal. 5, 22; *god*, I. Tim. 1, 8; *ungafairinonds* (for *-ods* B, *-oþs* A), I. Tim. 3, 2; but this is not certain, as A has many forms with *b* and *d* in agreement with B and elsewhere.

¹ My list, which is, I believe, fairly exhaustive, contains 170 nominatives in *fs* and *þs*, 53 in *bs* and *ds*. I may state here, that in this and subsequent lists a form

the latter are due to the influence of the other cases with intervocalic *b* and *d* (gen. dat. sg. and the entire plural), whether they are to be taken as merely the result of orthographic levelling, or as representing a real sound change (cf. Braune, *Gr.*, § 56, Anm. 7, where this view is advanced for *b*).

What is true of the nom. sg. may be suspected of the corresponding acc. and voc. sg., also of the nom. acc. sg. of neut. *a*-stems, so that in these cases *b* and *d* final may be due to levelling, and we really find the same proportion between voiceless forms and voiced in these cases of the noun with final spirant, that obtains in the nominative in *-s*, viz. *f*, *þ*, 184, *b*, *d*, 64-75 % and 25 % respectively. Likewise, in those forms of the strong verb in which the voiced spirant regularly becomes voiceless, viz., 1. 3. sg. pret. ind. and 2 sg. imp., *b* and *d* may be due to the preponderating influence of the other forms.

Only the verbal endings in *-id*, *-eid*, etc., are free from the suspicion of influence by medial *d*, and the usage of the Mss. with respect to these does not support the views either of Kögel or of Sievers and Streitberg. Such endings occur in the first seven chapters of Luke, 59 times (also *skamaid sik*,

occurring in two Mss., *e.g.*, in Ambros. A and B, is counted twice, also that Schulze, *Got. Glossar*, may be consulted for individual references, when, in order to save space, I give simply the total of cases. The forms in *fs* and *þs*: *hlaiþs* 10, *baups* 1, *daups* 3, *froþs* 2, *goþs* 2, *manaseþs-seiþs* 11, *juggalaups* 1, *staps* 1, *brufþs* 4, *hundafþs* 4, *þusundifþs* 1, *arbairþs* 4, *faheþs* 10, *naqaps* 2, *-aiþs*, L. 8, 29; J. 12, 16; I. Cor. 7, 25; II. Cor. 7, 13, A and B; Philip. 1, 23; I. Tim. 1, 13, 16; *-oþs*, I. Cor. 7, 18, 20, 21, 24; 9, 21; 15, 4; II. Cor. 7, 14, A, B; Philip. 1, 20; I. Tim. 2, 14, A, B; 3, 2, A; 6, 12, A, B; Tit. 1, 7, and *-iþs* 93. Those in *bs* and *ds*: *hlaiþs* 1, *þiups* 3; *gods*, L. 6, 35, 43; J. 10, 11; II. Tim. 2, 3; *gasti-gods*, I. Tim. 3, 2, A, B; Tit. 1, 8; *gariuds*, I. Tim. 3, 2, A, B; *manaseds*, J. 12, 19; 15, 18, 19; *missadeds*, R. 11, 12; *unleds*, L. 16, 20; *wods*, Mk. 5, 18; *stads*, L. 14, 22; *sads*, Philip. 4, 12; *brufþads*, L. 5, 34, 35; *hundafads*, L. 7, 6; *gaguds*, Mk. 15, 43; *faheds*, L. 1, 14; 15, 7, 10; J. 15, 11; II. Cor. 2, 3, B.; Gal. 5, 23, B.; *galiugaweitwods*, Mk. 10, 19; L. 18, 20; I. Cor. 15, 15; *galaþods*, I. Cor. 7, 18; *ungafairinonds* (by scribal error for *-ods*), Tit. 1, 6; I. Tim. 3, 2, B; *gasweraiþs*, J. 13, 31; *gaweithaiþs*, I. Cor. 7, 14; *gapiwiþs*, I. Cor. 7, 15; *mitads*, L. 6, 38; *mikiliþs*, L. 4, 15; *gahrainiþs*, L. 4, 27; *gamanwiþs*, L. 6, 40; *gasatiþs*, L. 7, 8; *garwasids*, L. 16, 19; *namniþs*, I. Cor. 5, 11; *ataugiþs*, I. Cor. 15, 5; *anthuliþs*, II. Thes. 2, 3; *ufarkauhiþs*, II. Tim. 3, 6; *ataugiþs*, I. Tim. 3, 16; *meriþs*, I. Tim. 3, 16. It is noteworthy that in unaccented syllables *þs* occurs after long vowel or diphthong 37 times, *ds* 15 times, *þs* after short vowel 95 times, *ds* 12 times.

9, 26, and *faginod in hammei*, 10, 20). In the same seven chapters verbal endings in *-þ* occur 52 times. An analysis of these forms shows that *d* occurs 9 times before a vowel, 50 times before a consonant and in pausa, while *þ* occurs 14 times before a vowel, 38 times before a consonant and in pausa. That is, 15 % of the forms with *d* occur before a vowel, 27 % of those with *þ*. Moreover, if we add to these the cases before voiced consonants, the figures are unfavorable to the theory of consistent sandhi; *d* occurs 22 times, *i.e.* in 37 % of the cases before sonant initial, *þ* 23 times, *i.e.* in 44 % of the cases in the same position. In chapters 11 to 19 of John, *d* occurs 12 times, 3 times before a vowel, 3 times before a voiced consonant, 4 times in pausa, twice before voiceless consonant. Finally, the form *ussiggwaid* occurs in pausa, Col. 4, 16, in Ambros. B; possibly also in the Turin fragment of Ambros. A (cf. Massmann, *Germ.* XIII. 221 sq.). It is evident that, so far as the verbal ending is concerned, final *d* is not due to the influence of following voiced initial.

On the other hand, it seems equally clear that the occurrence of *d* depends, to a certain extent, upon the quantity of the vowel of the ending. In the first seven chapters of Luke, *-iþ*, *-uþ* occur 34 times, *-id*, *-ud* 30 times, while *-eiþ*, *-oþ*, *-aiþ* occur 18 times, *-eid*, *-od*, *-aid* 29 times. The other examples of *d* final in verbal endings in Luke, John, and Col. occur without exception after a long vowel or diphthong (cf. also Kock, *Zfda.*, 25, 229).

Returning to the nominal forms, an examination of the individual cases does not support the theory of influence by following initial. A word-final appears in the Gothic text more often before a sonant initial than before a surd initial or in pausa, the proportion being about 6 to 4.¹ Therefore

¹ This proportion appears in the figures below and is borne out by tests made on the first 15 verses of Mark 3, John 4, II. Cor. 1. It is not possible to determine the forms in pausa with absolute exactness, but I believe that I have not erred far in referring to this category forms which occur before a stop, such as is indicated in Heyne's ed. by a comma or stronger mark of punctuation, generally indicated in the Mss. by a period or colon. Influence of a voiced initial upon a preceding final in spite of an intervening stop is only conceivable as a peculiarity of the scribe, not based upon the actual language and therefore not connected with the sandhi-theory.

the fact that *b* and *d* occur more frequently before sonant initial than elsewhere is not surprising; the sandhi-theory requires that considerably more than 60% of the cases occur in this position, also that there should be a difference in the relative frequency before voiced initial between *b*, *d* and *f*, *þ*. Now, in monosyllabic and compound nominal forms, *f*, *þ* occur 74 times, *b*, *d* 52 times; *f*, *þ* appear before sonant initial 44 times, *i.e.* in 59% of the cases, *b*, *d*, 32 times, *i.e.* in 61% of the cases.¹ Moreover, in Luke, where, as is well known, *b*, *d* final are most frequent, *f*, *þ* occur 4 times out of 5 before voiced initial, *b*, *d* 7 times out of 14. In John, *f*, *þ* occur 8 times out of 13, *b*, *d* three times out of 10 before voiced initial.

In unaccented nominal suffix *b* and *d* final are comparatively rare; excluding the perfect participles, the figures are *f*, *þ* 109, *b*, *d* 12. This divergence of the suffixes from the other nominal forms cannot be explained by the sandhi-theory, but an examination of the individual cases reveals a condition of affairs in harmony with the theory of levelling. Ten of the forms with *þ*, 5 of those with *d* are accusatives of masc. and fem. stems (*viz.* *mitaþ* 9, *fulleip* 1; *fahed*, J. 16, 22; 17, 13; Philip. 2, 2; *weitwod*, II. Cor. 1, 23, A, B), while 86 of those with *þ*, 5 of those with *d*, are nominatives and

¹ *Viz.*, *f*, *þ* before sonant initial: *hlaif*, Mt. 6, 11; Mk. 3, 20; 6, 8; 8, 14; L. 7, 33; 14, 15; J. 6, 31. 32. 32. 58; 13, 26. 26; I. Cor. 11, 26. 27; II. Thes. 3, 8, A; *lauf*, Mk. 11, 13; *gadof*, Tit. 2, 1; *þarf*, Philip. 2, 25; *gof*, Mk. 7, 27; 9, 5. 42; 14, 6; R. 7, 18; 12, 2; I. Cor. 1, 8. 26. 26; Gal. 4, 18; I. Tim. 1, 8, A; 4, 4, A, B; *saup*, Eph. 5, 2, A, B; Sk. 37; *manaseþ*, J. 16, 8; 17, 9; II. Cor. 5, 19, A, B; *awiliup*, I. Cor. 15, 57, A; II. Cor. 8, 16, A; *staþ*, L. 9, 10; Eph. 4, 27, A, B; *sap*, L. 16, 21; before surd initial and in pausa: *hlaif*, Mk. 7, 5; J. 6, 23. 24; I. Cor. 11, 23; Neh. 5, 14. 18; *lauf*, Mk. 11, 13; *gof*, Mk. 9, 43. 45. 47. 50; J. 15, 2; R. 7, 16. 19. 21; Eph. 4, 29, A, B; I. Thes. 5, 4; *manaseþ*, Mk. 14, 9; J. 6, 14; 17, 18; *juggalaup*, Mk. 16, 5; *awiliup*, II. Cor. 2, 14, A; *staþ*, Mk. 1, 35; 15, 22; 16, 6; L. 14, 9; R. 12, 19, A, Car.; *hundafap*, Mk. 15, 44; *b*, *d* before voiced initial: *hlaib*, Mk. 7, 27; L. 4, 4; 9, 3; J. 13, 20; II. Thes. 3, 8, B; 3, 12, A, B; *gadob*, Eph. 5, 3; I. Tim. 2, 10, A, B; Sk. 38; 42; *heilakairb*, II. Cor. 4, 17; *god*, Mt. 7, 19; L. 3, 9; 9, 33; I. Tim. 1, 8, B; 2, 3, A, B; 5, 4; *manased*, L. 9, 25; *awiliud*, I. Cor. 15, 57; II. Cor. 4, 15; 8, 16, B; 9, 15; *braid*, Mt. 7, 13; *baud*, L. 14, 34; *swalaud*, J. 14, 9; Gal. 4, 1; *stad*, J. 14, 2; *sad*, L. 15, 16; *grid*, I. Tim. 3, 13; before voiceless initial and in pausa: *hlaib*, J. 13, 18; *gadob*, Sk. 38; *god*, L. 6, 43; 14, 34; I. Thes. 3, 6; *manased*, J. 12, 47. 47; 17, 18; *awiliud*, II. Cor. 2, 14, B; *garaid*, L. 3, 13; *gariud*, Philip. 4, 8; *saud*, R. 12, 1; *juggalaud*, L. 7, 14; *samalaud*, L. 6, 34; *stad*, L. 4, 17. 42; J. 10, 40; 14, 3; 18, 2; *brupfad*, Mk. 2, 19.

accusatives of neuter *a*-stems (*liuhap* 14, *witop* 44, *druhtiwitop* 1, *haubip* 26, *milip* 1; *liuhad*, L. 8, 16; J. 11, 10; 12, 46; *haubid*, L. 7, 46; J. 19, 2). Now the nom. and acc. of the neut. sg. being identical in form, would resist the influence of the other cases much more strongly than the acc. sg. masc. or fem., which stands alone. Moreover, these neuters are all substantives, and therefore the nom. and acc. sg. are under the influence only of the other cases of the neuter, the monosyllabic and compound neuters are all adjectives (v. list above), and therefore influenced by the masc. and fem. forms as well. The labial spirant occurs only in the numeral *twalif* 13 (*twalib*, L. 6, 13; 8, 1); it is usually uninflected; consequently the form in *f* predominates so strongly.

In the strong preterite 1, 3 sg. and in the imperative 2 sg., *f* and *þ* occur 77 times out of a total of 121 before voiced initial, *i.e.* in 64% of the cases; *b*, *d* occur in the same position 14 times out of 22, *i.e.* in 64% of the cases. Omitting the forms *gaf*, *gif* with constant *f*, the figures for *f*, *þ* are 28 out of 42, *i.e.* 66% before voiced initial.¹ In Luke *f*, *þ* occur 9 times out of 22, or omitting *gaf*, *gif*, 3 times out of 6, before voiced initial; *b*, *d* 10 times out of 13 in the same position. In 7 of the 10 cases of *b* before voiced initial in Luke the following word is an enclitic pronoun with vocalic initial (*faurbaud imma*, 5, 14; *im*, 8, 56; *anabaud izai*, 8, 55; *bad ina*, 4), and here sandhi is evident. It may be added that *gaf* and *gif* with constant *f* in 79 cases, 49 of them before voiced initial, testify indirectly against the sandhi theory, for in accordance with it we may just as well expect **gab ina* (cf. L. 9, 1. 42; 10, 19; 19, 13) as *bad ina*.

¹ The cases with *f*, *þ* before voiced initial, are: *usgrof*, Mk. 12, 21; *swaif*, L. 7, 45; *afskauf*, R. 11, 1; *anabauf*, Mt. 8, 4; 27, 10; Mk. 1, 44; 5, 43; 6, 27; 7, 36; 8, 15; 9, 9; 10, 3; 11, 6; Neh. 5, 14; 7, 2; *faurbauf*, Mk. 6, 8; 8, 30; L. 9, 21; *fauragarairof*, Eph. 1, 5, A, B; *baþ*, Mk. 5, 10. 18. 23; 7, 26; 10, 17; L. 9, 29; II. Cor. 12, 8, A, B; before voiceless initial and in pausa: *anabauf*, Mk. 7, 36; 8, 6; *baþ*, Mt. 27, 58; Mk. 1, 35; 6, 25; 15, 43; L. 7, 36; 8, 38; 9, 40; II. Cor. 12, 18, A, B; I. Tim. 1, 3, A, B; *gawap*, Mk. 10, 9 (cf. *bilaif*, Cal.); *b*, *d* before voiced initial: *grob*, L. 6, 48; *anabiud*, I. Tim. 5, 7, A, B; *anabaud*, L. 5, 14; 8, 29. 55; J. 14, 31; *faurbaud*, L. 5, 14; 8, 56; *bad*, L. 5, 12; 8, 31. 41; 15, 28; I. Cor. 16, 12; before voiceless initial and in pausa: *gadob*, Sk. 42; *biswarb*, L. 7, 38. 44; J. 11, 2; 12, 3; *anabiud*, I. Tim. 4, 11; *afskaiskaid*, Gal. 2, 12; *bad*, L. 18, 11.

The consideration of *gaf* naturally suggests those other forms, in which voiceless spirant from original voiced spirant is constant. They fall into two classes, the common characteristic of which is that they are free from the influence of forms with medial *b*, *d*, or *z*: 1. The particles *af*, *uf*, *miþ*, *hvaþ*, *us* (the isolated exceptions being *mid iddjedun*, L. 7, 11; *had gaggis*, J. 13, 36), four of which appear very frequently as adverb or preposition before sonant initial. 2. *s*-endings, exceedingly frequent in noun and verb (e.g. nom. -*s*, nom. and verb -*is*, -*ôs*, -*eis*, -*ais*, etc.; cf. *ainzu*, I. Cor. 9, 6; *anþarizuh*, Mk. 11, 3; *wileizu*, L. 9, 54, etc. Leo Meyer, *Got. Spr.*, § 197; Braune, § 78 c.). It is a significant fact that the seven cases of final *z* (cf. Leo Meyer, *l.c.*, Streitberg, *l.c.*) all appear in nominal stems, and are therefore under the influence of medial *z*.¹

It is, I believe, quite clear from the foregoing that the sandhi-theory cannot be accepted as explaining in general final *b*, *d*, *z*; that, in other words, these letters are not in the main due to a conscious or systematic attempt at sentence writing by the later scribes. This does not mean, however, that sandhi is not to be recognized in individual cases, where it may be regarded as accidental and unconscious. It must, as we have observed above, be admitted in explanation of the voiced spirant in certain strong preterites in Luke. It is quite as evident as a contributory cause of the *d* final, which occurs in ten perfect participles in Luke. Of these, eight precede enclitic word with vocalic initial (*galadid in*, 2, 12; *gamelid ist*, 2, 23; 3, 4; 4, 4. 8. 10; 7, 27; *gasulid auk was*, 6, 48), two are in pausa (*gamelid*, 4, 17; *wagid*, 7, 24). With the exception of *bad ina*, 15, 28, these preterites and perfect participles with sandhi -*d* appear only in the first eight chapters, while in the succeeding chapters we find in the same position *þ*; e.g. *faurbaup ei*, 9, 21; *gameliþ ist*, 10, 26; 19, 46. These two groups of cases are the only consistent and

¹ Summing up all the forms with *b*, *d*, or *z* final in the Gothic fragments, it appears that they occur 98 times out of 179 (in 55 % of the cases) before voiced initial; that is, about in the normal ratio of frequency of word-final before voiced initial.

indisputable exponents of sandhi in Luke, and it is important to note that they support the view of sandhi only before enclitic (subordinate member of a speech-group) with vocalic initial, *i.e.* where the spirant is intervocalic.

Another theory in explanation of *b* and *d* final and before *s* is that proposed by Axel Kock in the *Zfda.*, 25, 226 sq. Kock observed that these *b*'s and *d*'s occur in the majority of the cases in an unaccented syllable or in a long accented syllable, and ascribes the persistence, as he conceives it, of the original voiced spirant to its relative lack of accent; while in short accented syllable the voiceless fortēs *f*, *p* are regular, and the exceptional cases of *d* are due to enclisis and other causes. Kock's theory has not found acceptance, as I believe, for the following reasons: 1. The forms with voiced spirant are most frequent in Luke, which exhibits peculiarities of phonology and inflection to be ascribed to the dialect of the East Gothic scribes, and therefore the strong presumption is that exceptional *b*'s and *d*'s are not original (Braune, § 74, Anm. 1, § 221, 1). 2. According to Kock, the same cause which maintained *b* and *d* originally is exemplified in the *b* of the East Gothic *Gudilub* in the roll of Arezzo, probably written in the first half of the sixth century. It is not clear, in that case, how he would explain the numerically predominating forms with voiceless spirant; e.g. *hlaiƿ*, *usgrof*, *goþ*, *anabaup*. Moreover, Kock attributes the unvoicing of the spirant in nominatives like *hlaiƿs*, *baup*s, to the influence of following *s*. But the sibilant was voiced in Pregerm. and should therefore remain, according to Kock's law, in Gothic; the form of the nom. which we should expect is **hlaiƿz*, **baudz*, **stadz*, and the development of *hlaiƿs*, etc., would be inexplicable. Then the practical universality of final *s* in suffix and ending, and the overwhelming preponderance of *p* in verbal endings, directly oppose Kock's theory. 3. The difference in the development of the voiced spirant in accented syllable according as it is long or short, although conceivable from a phonetic point of view, is so far as I know without parallel, and therefore must be regarded with a certain amount of skepsis.

Finally, Wrede's explanations of *b* for *f*, and *d* for *þ*—he gives separate ones for each letter—in the grammatical appendix to Heyne's *Ulfilas*, 9th ed. 1896, seem to me neither clear nor, so far as they contain new ideas, convincing. That Pregerm. *f* and Wulf. *f* (<*b*) were different sounds in Gothic, the first a labio-dental, the second a bilabial (§ 58, Anm.), is possible, but certainly cannot be made probable by such criteria as Wrede cites. That *b* for *f* final and before *s* is due to an attempt in later East Gothic to distinguish these two sounds in writing is, in the light of a thorough examination of the cases, impossible. In § 63, Anm. 1, Wrede explains *d* for *þ* as follows. In later East Gothic, where the Wulf. medial voiced spirant *d* had become a stop,¹ while Germ. *þ* retained its spirantal quality everywhere, *þ* (<*d*) followed in its development the former rather than the latter, either because the two *þ*'s were never completely identical in sound or on account of the influence of related forms with medial *d*. In view of the express statement, § 62, that the younger *þ* is voiceless, the suggestion of two *þ*-sounds in Wulfila is rather difficult of comprehension. Most decidedly the second alternative—viz. levelling—is the correct explanation of the *d* in question.

My conclusions as to the origin of the letters in question are as follows: In the original text of the Gothic Bible *f* and *þ* were consistently written in the final position and before *s* for the Pregerm. voiced spirants *þ*, *ð*, and *s* appeared in the final position for Pregerm. *z*. This regularity was no doubt merely orthographic, and cannot be taken as indicating that the underlying sound change was without exception, no matter what position the word occupied in the sentence. Wulfila's orthography was a system of word-writing which disregarded variations of the spoken word in the sentence. One concession to sentence-writing was made in the case of the enclitic particles *-u* and *-uh* (= *-que*); these never appeared

¹ The evidence drawn from the spelling of Gothic proper names in Latin, on which Wrede bases his assumption that Wulfilanic postvocalic *d* had become a stop in East Gothic (*Spr. d. Ostg.*, p. 171), is very meagre, and I am inclined to regard as stronger testimony for the persistence of the spirant the occasional representation of sandhi by the later scribes.

under accent, nor were they associated in the mind with other forms, as e.g. *ist* with *im*, *is*, *sind*, etc., *ina* with *is*, etc.; therefore they were not felt nor written as independent words. When appended to a word ending in original voiced spirant, this, as is well known, is preserved (cf. Schulze, *Glossar*, sub *-u*, *-uh*). But forms like *abu*, J. 18, 34; *uzuh*, L. 20, 4; *qibiduh*, Mk. 16, 7, prove conclusively that the voiced spirant was spoken in Wulfila's time before a word in the same speech-group with vocalic initial, e.g. *uf imma* was spoken *u bimma*.

At a later period *b*, *d*, and *z* begin to creep into the texts for earlier *f*, *þ*, *s*. They are due in the first instance to levelling. This is evident in the case of *b* and *d* before *s*. It is quite as true of *b*, *d*, *z* final, as is shown by the fact that these letters appear with sporadic exceptions only in those classes of words in which the influence of medial voiced spirant is possible, viz. in the nom., acc., voc. sg. of nouns, and in the 1. 3 sg. pret. and 2 sg. imp. of strong verbs. Furthermore, they are more frequent in the case-forms than in the 1. 3 sg. pret., because the latter form a small class by themselves, and are, therefore, more isolated from the related forms than the nom., acc. sg. from the other cases. This fact is strikingly illustrated by *gaf* with its constant *f*.

This levelling was probably only a matter of spelling, but it prepared the way for the representation of the real voiced spirant in sandhi, which is to be seen in the first eight chapters of Luke, perhaps in isolated cases elsewhere. Were it not for the forms *mid*, *had*, it might be suspected that in the particles the form with voiceless spirant had entirely supplanted in the spoken language its alternate form with voiced spirant. If this were so, it would be the best of proofs that the spellings *hlaib*, *bad*, are chiefly due to levelling. As it is, these forms show how strongly tradition rules in the spelling of the Mss., and help to solve the question of the source of *d* in the verbal endings.

The examination of these endings revealed the fact that the *d* is not due to sandhi. They are also not due to levelling, hence must be explained differently from the other forms. It seems quite clear to me that we have to do here with a

sound-change in East Gothic, by which the voiceless spirant became voiced in unaccented syllable. The verbal endings were in this dialect *-ið*, *-uð*, etc., and it is to be noted that East Gothic herein corresponds with High German (cf. Streitberg, *Urgerm. Gram.* § 211, 3). The dialectic form of these endings found expression to a considerable extent in the first seven chapters of Luke, in which late *b*, *d* are so frequent in other forms, elsewhere only sporadically. They occur more frequently after long vowel or diphthong than after short vowel, because perhaps the weak lenis-character of the sound was more evident in the former case than in the latter.

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